

ABSTRACT

5 In a multi-channel communication system (300) data (306) and pilot data (308) are combined to provide a composite signal comprising discrete data signals (405), each having a data portion (407) and a pilot data portion (409). The composite signal is transmitted and a corresponding composite signal received on a communication channel having varying characteristics. An added pilot semi-blind (APSB) channel estimator (320) and equalizer (330) apply a converging iterative process to estimate the characteristics of the communication channel and the transmitted data.